



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,662	04/06/2005	Marc Hartel	VO-700	7636

7590 01/31/2007  
Pauley Petersen & Erickson  
2800 West Higgins Road  
Suite 365  
Hoffman Estates, IL 60195

EXAMINER
----------

NGUYEN, PHUONGCHI T

ART UNIT	PAPER NUMBER
----------	--------------

2833

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/530,662	HARTEL ET AL.	
	Examiner	Art Unit	
	Phuongchi Nguyen	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-22 and 34-36 is/are allowed.
- 6) ☒ Claim(s) 1-16 and 23-33 is/are rejected.
- 7) ☐ Claim(s) \_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

Art Unit: 2833

### DETAILED ACTION

1. Applicant's amendment of November 02, 2006 is acknowledged. It is noted that Claims 1, 7, 17, 34 and 36 are amended.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 23-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buse (6491535) in view of Pak (US5574612).

In regards to claim 1, Buse disclose the frame support comprising the electrification arrangement having at least one separate electrification strip (body of 62) (fig. 6) attached to a profiled mounting element (10), formed by a hollow profiled receiving element (42) (figs. 2+6), at least partially open on a long side and having at least one hollow space (18) in which one of contact rails (60) and (electrical) connection lines (through contact 60) are installed and protected against electric shock (fig. 6) and

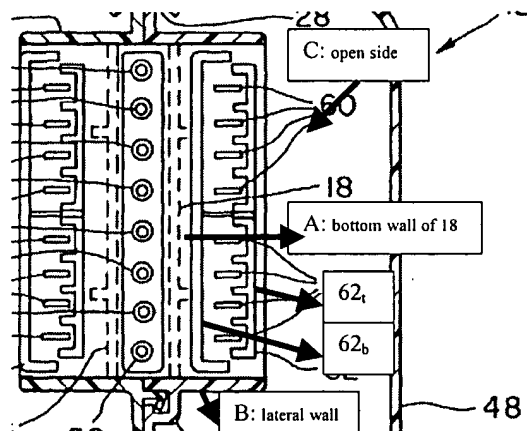
inserts (16) insertable into the electrification strip (body of 62) and having plug receivers (socket where a mating pin inserted into 16) protected against electric shock for (mating) device plugs of devices to be connected, and contact element (other end of the insert terminal 16), electrically contactable with the connecting lines (through contact 60). Buse discloses the invention generally all as claimed, but lacks an overload device. However, Pak teaches the electrification arrangement comprises an overload device (136a, b) (fig. 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the insert of

Art Unit: 2833

Bus by having an over load device as taught by Pak into the inserts to prevent an over load current in the electric circuit (col. 9, lines 47-54).

In regards to claim 2, Buse disclose the frame support wherein a profiled insulating element (62), in which the contact rails (60) are embedded and are accessible in a manner protected against electric shock through access openings (it is inherent, openings where terminal of 16 connect to mating terminal) formed in the profiled insulating element (62) is inserted into at least one hollow space (18) of the profiled receiving element (42).

In regards to claim 3, Buse disclose the frame support wherein the at least one hollow space (18) is one of rectangular and square in cross section and has a base wall (A, bottom surface of 18) located opposite the open longitudinal side (C), adjoined by lateral walls (B), a bottom section (of 62<sub>b</sub>) of the profiled insulated element (62) in which the contact rails (60) are embedded faces one of the base wall (A) and the lateral wall (B), and the contact rails (60) are contactable with the contact elements (the other end of terminal of 16) via the access



openings (openings where terminal of 16 located) (col. 3, lines 42-48), which are kept narrow for electric shock protection and cut into the bottom section (of 62<sub>b</sub>) of a side located opposite bottom side (of 62<sub>t</sub>) (see mark-up below).

Art Unit: 2833

In regards to claim 23, Buse disclose the frame support (12) used for an electrification arrangement.

In regards to claim 24, Buse discloses the invention generally all as claimed, but lacks a current feed-in coupling or a feed-in module or a line element for voltage conversion or adaptation or a current limiting device or a switching element. It would have been obvious to one having ordinary skill at the time the invention was made to replace the inserts on the frame support of Buse by having a current feed-in coupling or a feed-in module or a line element for voltage conversion or adaptation or a current limiting device or a switching element for the purposes of the user needed.

In regards to claim 26, Buse discloses the profiled insulating element (62) is assembled from a profiled base insulating part (62<sub>b</sub>), that receives the contact rails (60) in longitudinal chambers and insulates them from each other, and a profiled top insulating part (62<sub>t</sub>), covering the contact rails (60) and having access openings (D) (see mark-up above).

4. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buse (6491535) in view of Pak (US5574612) applied as claim 3 above and further in view of Nowell (US5784841).

In regards to claim 4, Buse discloses the invention generally all as claimed, but lacks a snap-in structure on the profiled insulating element. However, Nowell teaches the insulated profiled element (A) is fixed in place in the profiled receiving element (B) by snap-in structures (46, 46) and complementary counter snap-in structures (70, 70) arranged in the profiled receiving element (B) (fig. 4A). It would have been obvious to one having ordinary skill at the time the invention was made to modify the profiled insulating element of Buse by having a snap in structure as taught by Nowell for securing the profiled insulating element to the profiled receiving element.

Art Unit: 2833

In regards to claim 5, Buse discloses the invention generally all as claimed, but lacks steep snap-in flanks. However, Nowell teaches the snap-in structures (46, 46) and the counter snap-in structures (70 or 140 in fig. 7) have steep snap-in flanks (76 or 142 in fig. 7) opposite an insertion direction, for preventing removal of the profiled insulating element (A) (fig.4A). It would have been obvious to one having ordinary skill at the time the invention was made to modify the profiled insulating element of Buse by having steep snap-in flanks as taught by Nowell for locking the profiled insulating element to the profiled receiving element.

In regards to claim 6, Buse discloses the profiled insulating element (62) is assembled from a profiled base insulating part (62<sub>b</sub>), that receives the contact rails (60) in longitudinal chambers and insulates them from each other, and a profiled top insulating part (62<sub>i</sub>), covering the contact rails (60) and having access openings (D) (see mark-up above).

5. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buse (6491535) in view of Pak (US5574612) applied as claim 2 above and further in view of Nowell (US5784841).

Claim 25 is rejected for the same reason of claim 4.

6. Claims 1-3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welch et al (US5670743) in view of Buse (6491535) and Pak (US5574612).

In regards to claim 1, Welch et al disclose in a frame support for a rack or a switchgear cabinet, having an electrification arrangement, combined with at least one profiled mounting element (12, 14, 16), for at least one of supplying and removing electrical current one of to and from connectible devices, the frame support (40) comprising the electrification arrangement having at least one separate electrification strip (body of 44) attached to a profiled mounting element (12, 14, 16) (fig.1) in which one of contact rails (62) and (electrical) connection lines are installed and protected against electric shock (figs. 3 and 6) and inserts (77+79) insertable into the electrification strip (body of 44) and having plug receivers (86 or 79) protected against

Art Unit: 2833

electric shock for device plugs of (mating) devices to be connected, and contact elements (83), electrically contactable with the (electrical) connecting lines (through contact 62 and 83). Welch et al disclose the invention generally all as claimed, but lacks a hollow profiled receiving element, a hollow space and an overload device. However, Buse teaches the electrification strip (body of 62) (fig. 6) formed by a hollow profiled receiving element (42) (figs. 2+6), at least partially open on a long side and having at least one hollow space (18); and Pak teaches the electrification arrangement comprises an overload device (136a, b) (fig. 3). It would have been obvious to one having ordinary skill at the time the invention was made to modify the frame support of Welch et al by having a hollow profiled receiving element and a hollow space as taught by Buse to retain the electrification strip inside the profile mounting element for having space to protect the inserts from furniture or office supply such as table, computer's CPU; and by having an over load device as taught by Pak into the inserts to prevent an over load current (col. 9, lines 47-54).

In regards to claim 2, Welch et al disclose the frame support (40) wherein a profiled insulating element (44+66), in which the contact rails (62) are embedded and are accessible in a manner protected against electric shock through access openings (76) formed in the profiled insulating element (44+66). The hollow space of the profiled receiving element is rejected in claim 1 above.

In regards to claim 3, Welch et al disclose the frame support (40) wherein a bottom (surface) of a bottom section (48) of the profiled insulated element (44+66) in which the contact rails (62) are embedded faces one of the base wall (wall of 48) and a lateral wall (50), and the contact rails (62) are contactable with the contact elements (83) via the access openings (76), which are kept narrow for electric shock protection and cut into the bottom section of a side located opposite bottom side (67) (fig. 3). Welch et al disclose the invention generally all as

Art Unit: 2833

claimed, but lacks a rectangular and square of the hollow space. However, Buse teaches the at least one hollow space (18) is one of rectangular and square in cross section and has a base wall (A, bottom surface of 18) located opposite the open longitudinal side (C), adjoined by lateral walls (B)(see mark-up above). It would have been obvious to one having ordinary skill at the time the invention was made to modify the frame support of Welch et al by having a rectangular and square of the hollow space as taught by Buse to ease manufacture the electrification strip, the inserts and the frame support.

In regards to claim 26, Welch et al discloses the profiled insulating element (44+66) is assembled from a profiled base insulating part (44), that receives the contact rails (62) in longitudinal chambers and insulates them from each other, and a profiled top insulating part (66), covering the contact rails (62) and having access openings (76, 75) (fig. 3).

7. Claims 4-15, 23-25, 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welch et al (US5670743) in view of Buse (6491535) and Pak (US5574612), applied as claim 3 above, and further in view of Nowell (US5784841).

In regards to claim 4 and 25, Welch et al discloses the insulating profile element (44+66) (fig. 3). Welch et al discloses the invention generally all as claimed, but lacks a snap-in structure on the profiled insulating element. However, Nowell teaches the insulated profiled element (A) is fixed in place in the profiled receiving element (B) by snap-in structures (46, 46) and complementary counter snap-in structures (70, 70) arranged in the profiled receiving element (B) (figs. 1, 4A and 6). It would have been obvious to one having ordinary skill at the time the invention was made to modify the profiled insulating element of Welch et al by having a snap in structure as taught by Nowell for securing the profiled insulating element to the profiled receiving element.



In regards to claim 5, Welch et al discloses the invention generally all as claimed, but lacks steep snap-in flanks. However, Nowell teaches the snap-in structures (46) and the counter snap-in structures (70 or 140 in fig. 7) have steep snap-in flanks (76 or 142 of fig. 7) opposite an insertion direction, for preventing removal of the profiled insulating element (A) (figs. 1, 4A and 6). It would have been obvious to one having ordinary skill at the time the invention was made to modify the profiled insulating element of Welch et al by having steep snap-in flanks as taught by Nowell for locking the profiled insulating element to the profiled receiving element.

In regards to claim 6, Welch et al discloses the profiled insulating element (44+66) is assembled from a profiled base insulating part (44), that receives the contact rails (62) in longitudinal chambers and insulates them from each other, and a profiled top insulating part (66), covering the contact rails (62) and having access openings (76, 76, 75) (fig. 3).

In regards to claims 7 and 27, Welch et al discloses the access openings (76, 76, 75) of the profiled top insulating part (66) are formed by a group of at least two hole-shaped access openings (76, 75), assigned to separate contact rails (62) (fig. 3).

In regards to claim 8, Welch et al discloses the at least two access openings (76, 76, 75) are offset from each other in the longitudinal direction of the profiled insulating element (44+66) (figs. 3 and 8).

In regards to claims 9 and 28, Welch et al discloses the contact elements (83) are contact pins, matched in size and position to the access openings (76) (fig. 3).

In regards to claims 10 and 29, Welch et al discloses the invention generally all as claimed, but lacks a snap-in element on the insert. However, Nowell teaches the inserts (80) have snap-in elements (112), to prevent removal from one of the profiled receiving element (B, C) (fig. 6). It would have been obvious to one having ordinary skill at the time the invention was

Art Unit: 2833

made to modify the insert of Welch et al by having a snap-in element as taught by Nowell for easily inserting the insert into the profiled receiving element.

In regards to claims 11-12 and 30, Welch et al (figs. 3 and 10) discloses the one of at least three contact rails (62, 228) are embedded in the profiled insulating element (44+66; 210+310) and three (electrical) connecting lines (through contacts 62+83, 228+246+248) form at least two separate current supply circuits (signal, neutral and ground lines) (col. 8, lines 61-64).

In regards to claims 13 and 31, Welch et al (figs. 3 and 7) discloses a dimension of the inserts (77+79; 100+140) in the longitudinal direction of the electrification strip (body of 44, 108) is one of a unit of height and a whole-number multiple of the unit of height, and the inserts (77+79, 100+140) receive at least one appliance plug (320) (fig. 11B).

In regards to claims 14-15 and 32, Welch et al discloses the invention generally all as claimed, but lacks fastening elements such as a screw and frame leg. However, Buse teaches discloses the profiled receiving element (42) has on at least one longitudinal side with fastening elements such as a screw (56) for connection with one of at least one frame leg (20, 20) and a profiled mounting element (10) (fig. 2). It would have been obvious to one having ordinary skill at the time the invention was made to modify the frame support of Welch et al by having fastening elements such as a screw and frame leg as taught by Buse to secure the electrification strip the profile mounting element.

In regards to claims 16 and 33, Welch et al discloses the invention generally all as claimed, but lacks H-shaped in cross section of the profiled receiving element. However, Buse teaches the profiled receiving element (42) is H-shaped in cross section (if the viewer locates from either sides of fig. 2) formed by two lateral walls (34, 34) and a center wall (by 18, 18), and (a bottom portion of) the inserts (16) are placed into the hollow space (18) on a side of the center wall (18, 18) facing the user and the contact rails (62) (figs. 5 and 6). It would have been

Art Unit: 2833

obvious to one having ordinary skill at the time the invention was made to modify the frame support of Welch et al by having H-shaped cross section in the profiled receiving element as taught by Buse to expand the profiled receiving element to another side of the frame support to have more space to retain additional the electrification strip.

In regards to claim 23, Welch et al disclose the frame support used for an electrification arrangement.

In regards to claim 24, Welch et al discloses the invention generally all as claimed, but lacks a current feed-in coupling or a feed-in module or a line element for voltage conversion or adaptation or a current limiting device or a switching element. It would have been obvious to one having ordinary skill at the time the invention was made to replace the inserts on the frame support of Welch et al by having a current feed-in coupling or a feed-in module or a line element for voltage conversion or adaptation or a current limiting device or a switching element for the purposes of the user needed.

***Allowable Subject Matter***

8. Claims 17-22 and 34-36 are allowed.

***Response to Arguments***

9. Applicant's arguments with respect to claims 1-16 and 23-33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012. The examiner can normally be reached on 8:00AM-4:00PM.

Art Unit: 2833

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PCN

July 19, 2006

  
NEIL ABRAMS  
PRIMARY EXAMINER